

FIG. 1

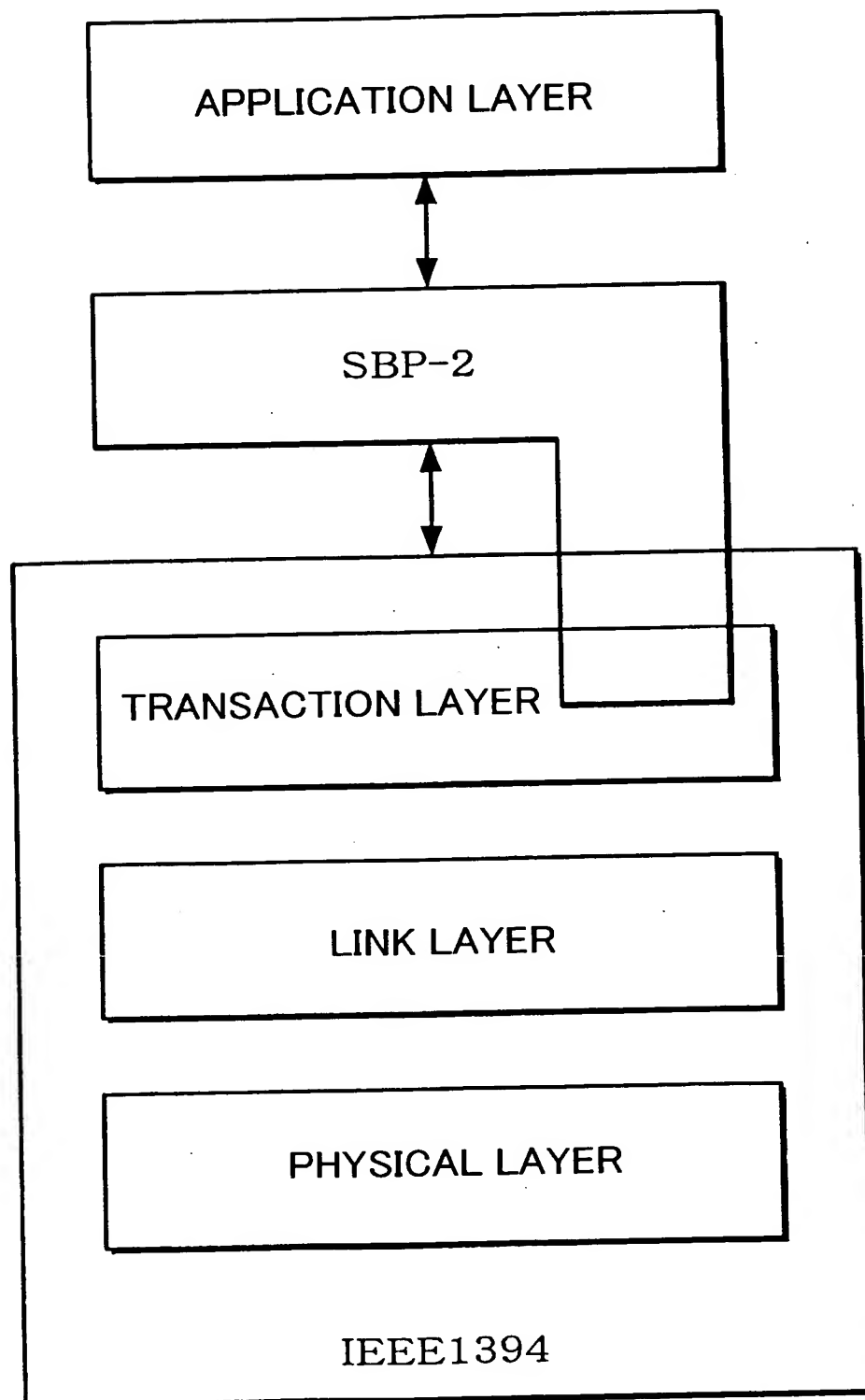


FIG. 2

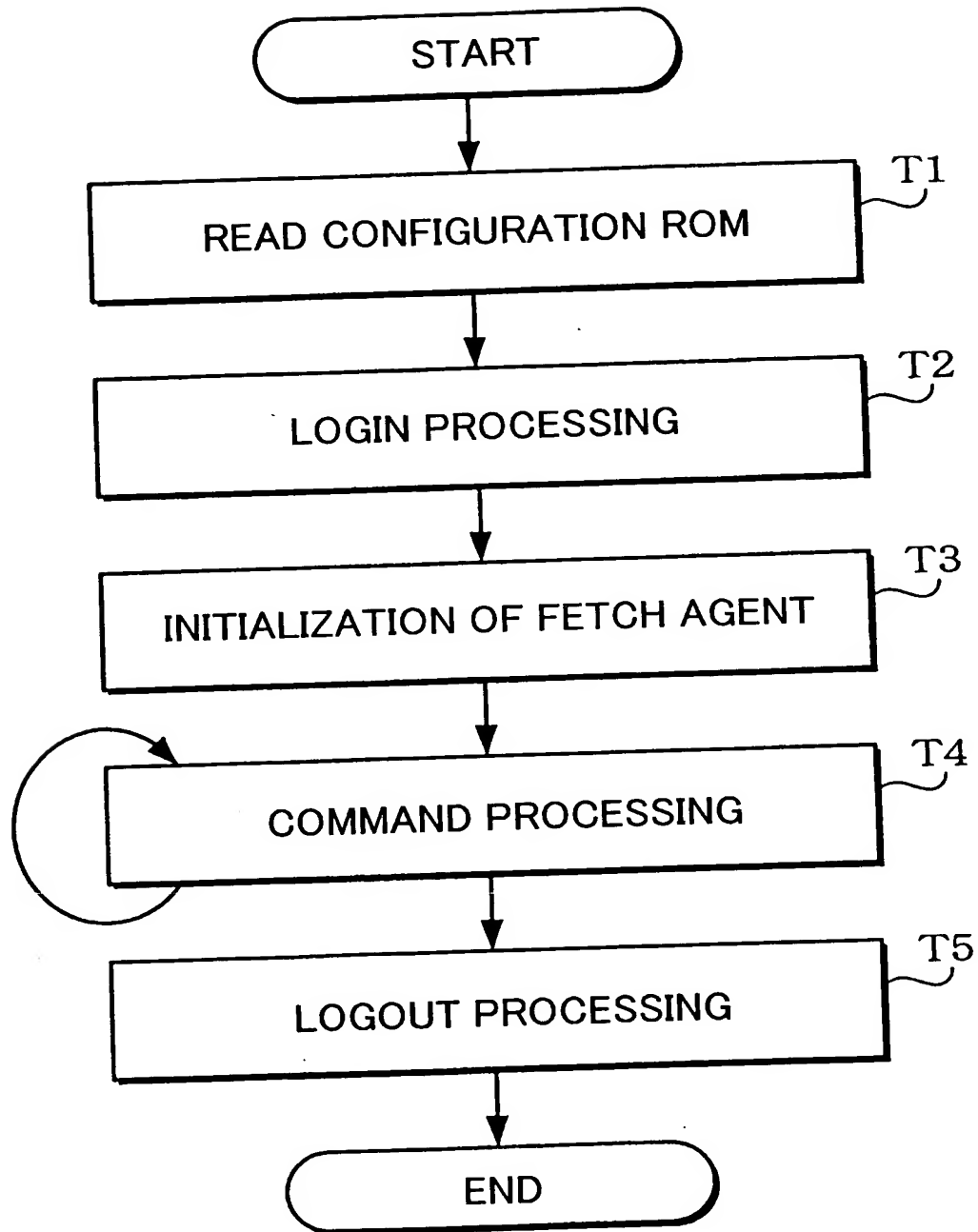


FIG. 3

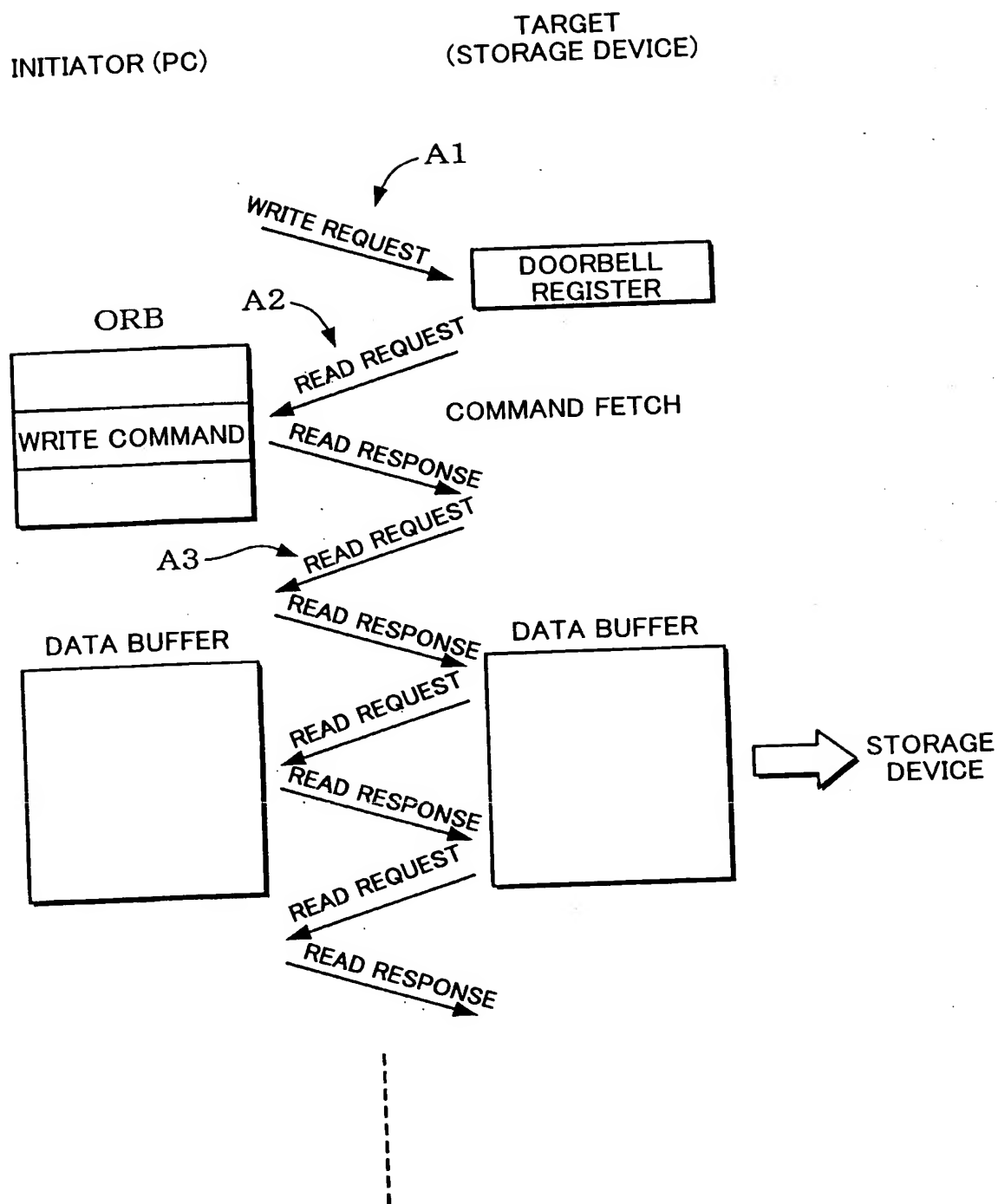


FIG. 4

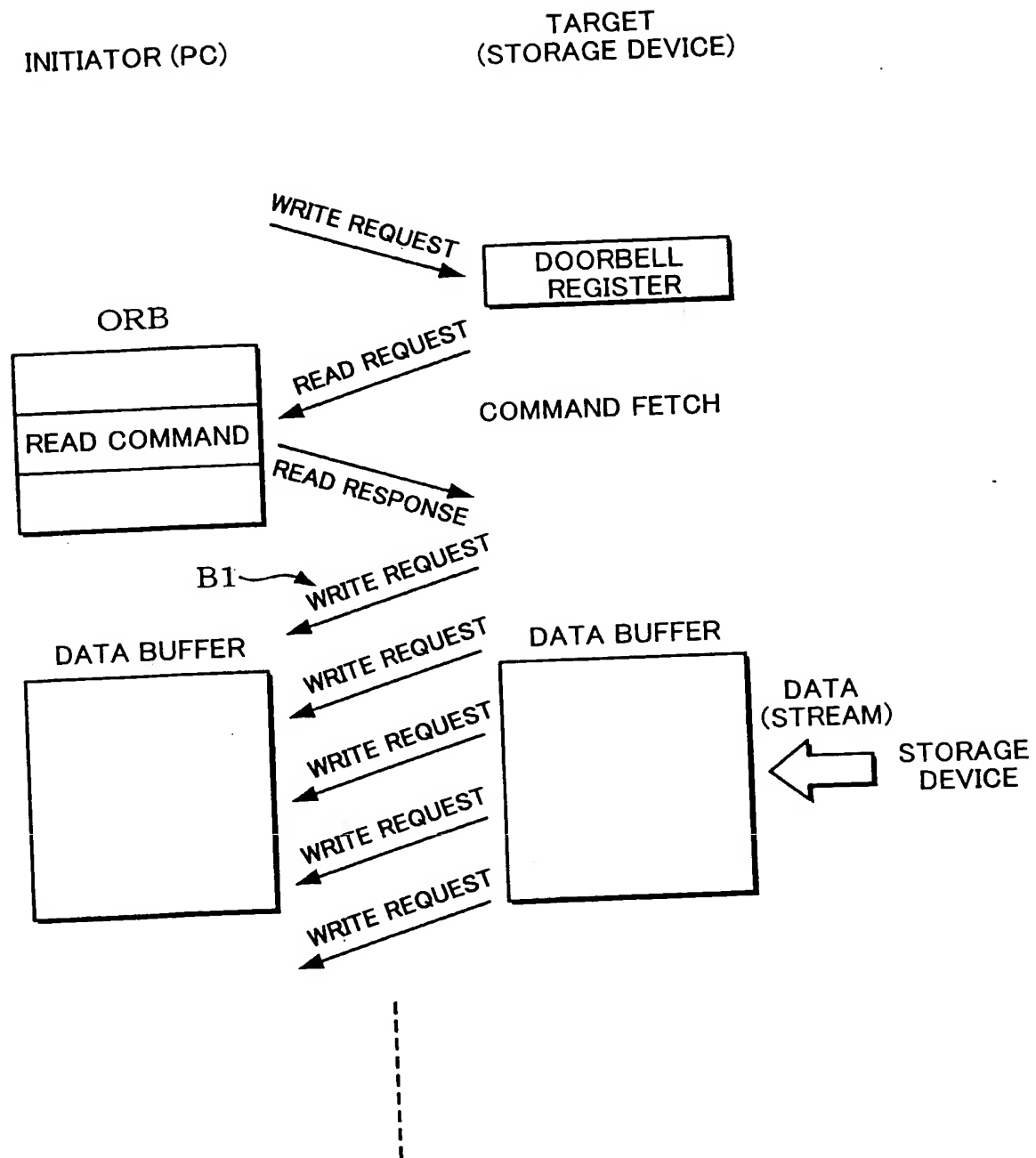


FIG. 5A

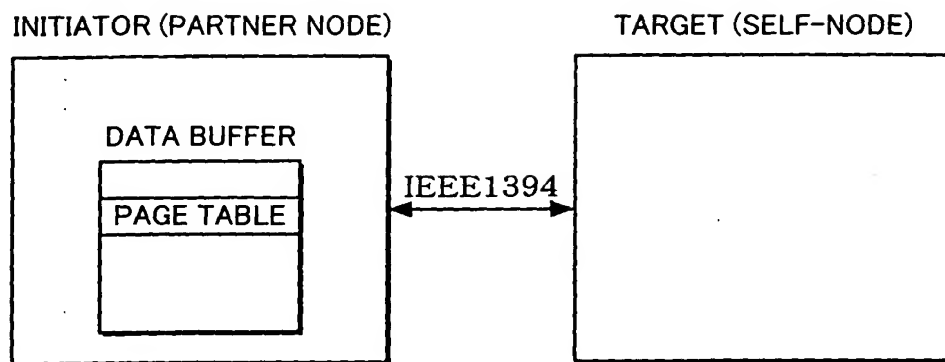


FIG. 5B PAGE TABLE IS PRESENT

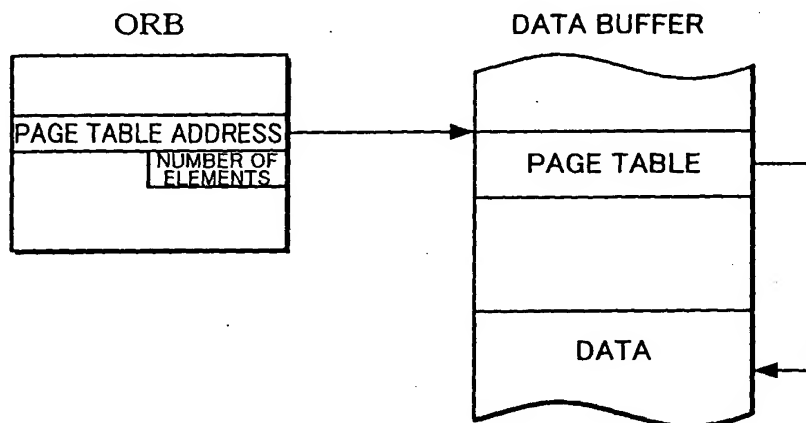
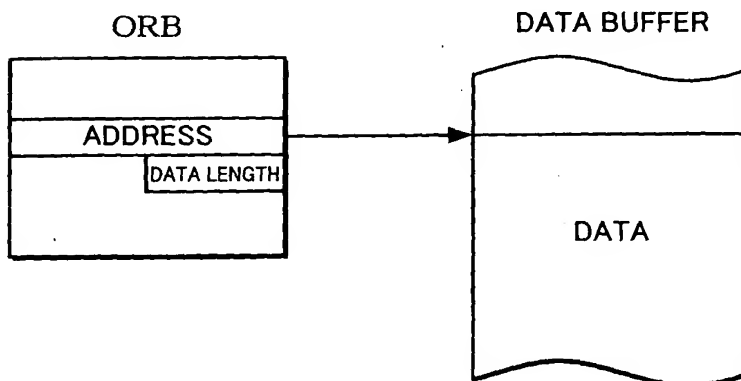


FIG. 5C PAGE TABLE IS NOT PRESENT



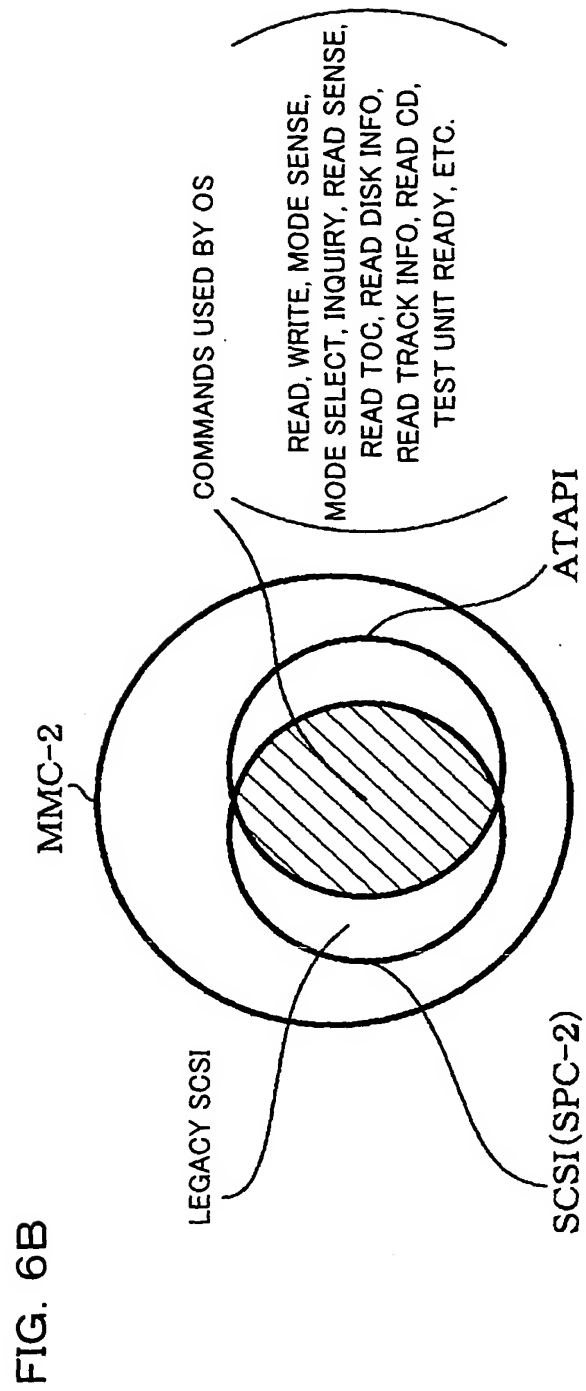
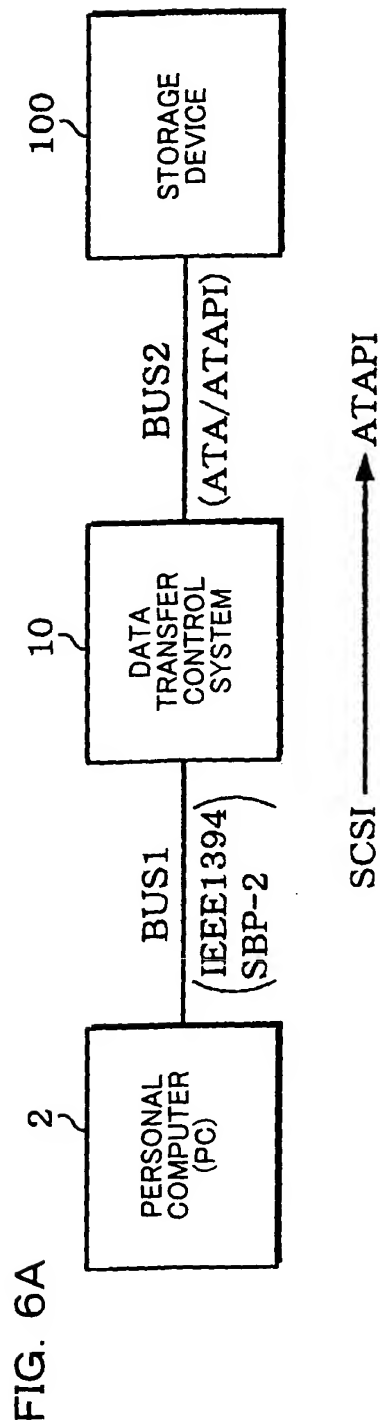


FIG. 7

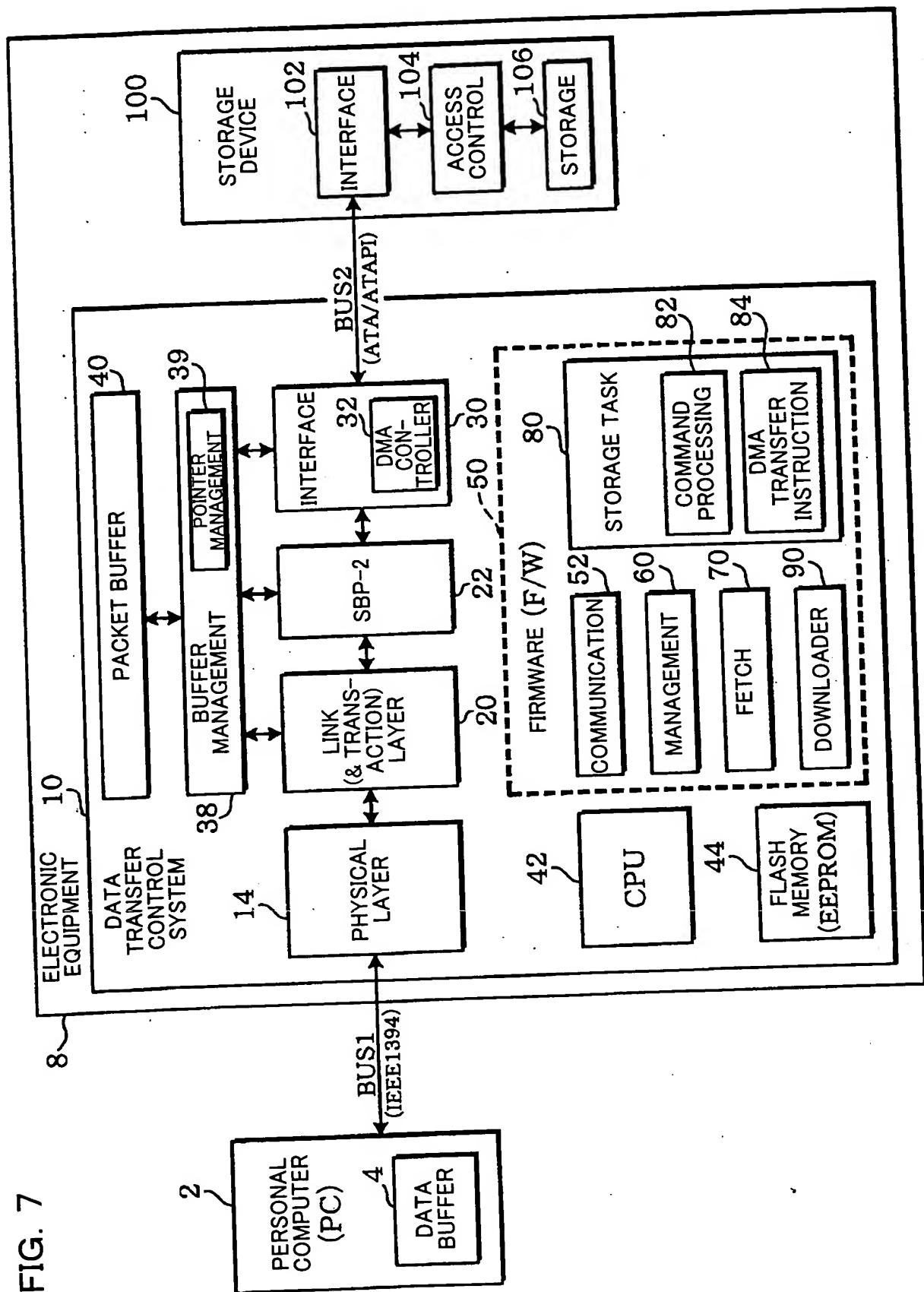


FIG. 8

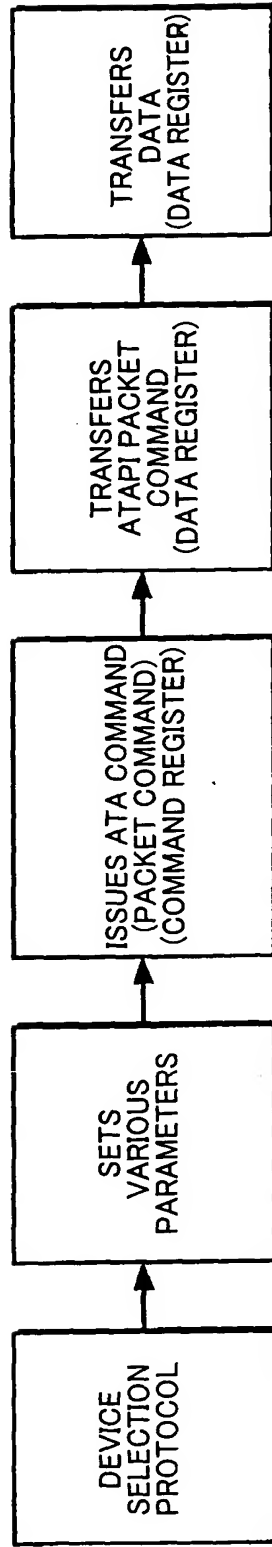


FIG. 9

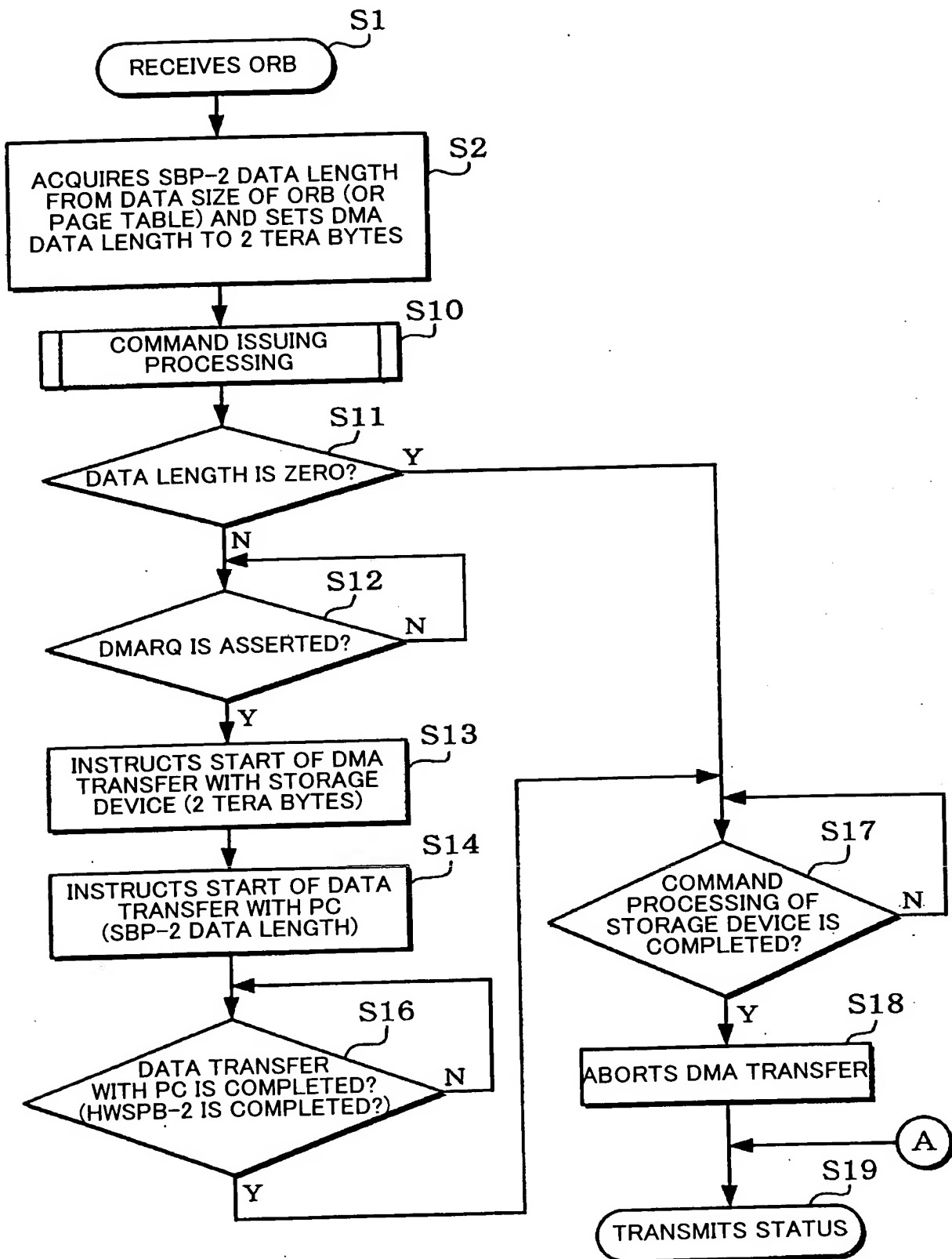


FIG. 10

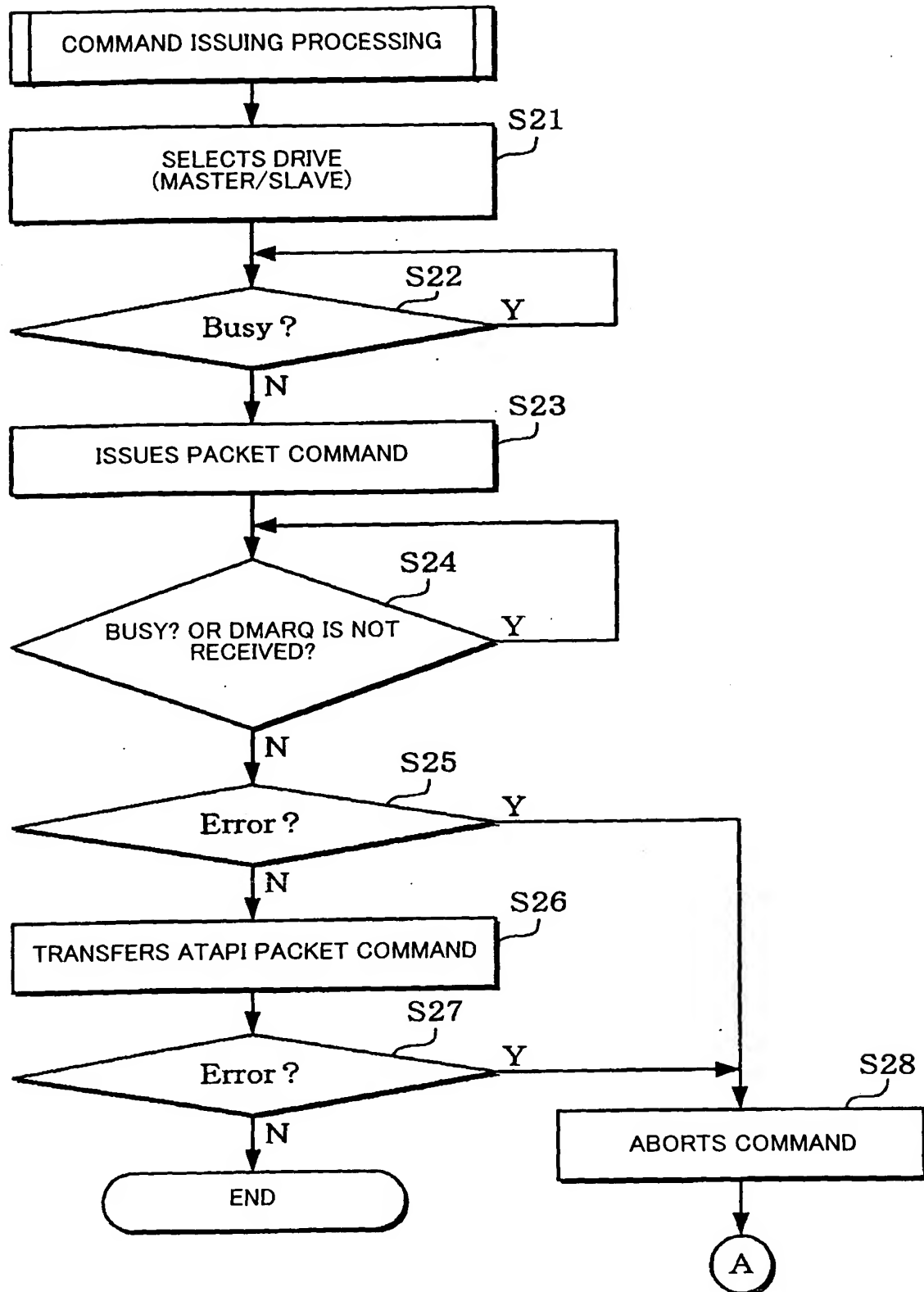


FIG. 11

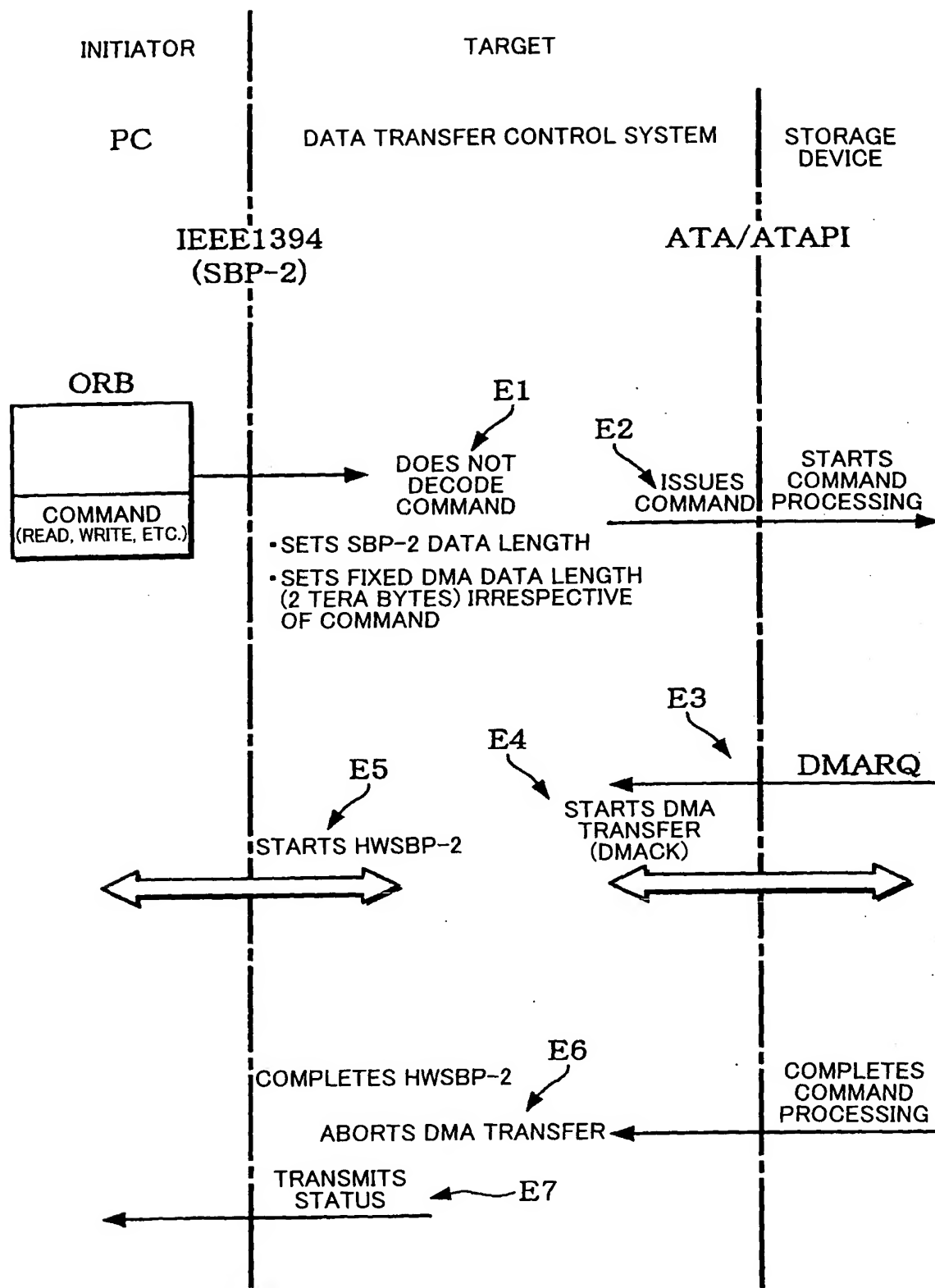


FIG. 12

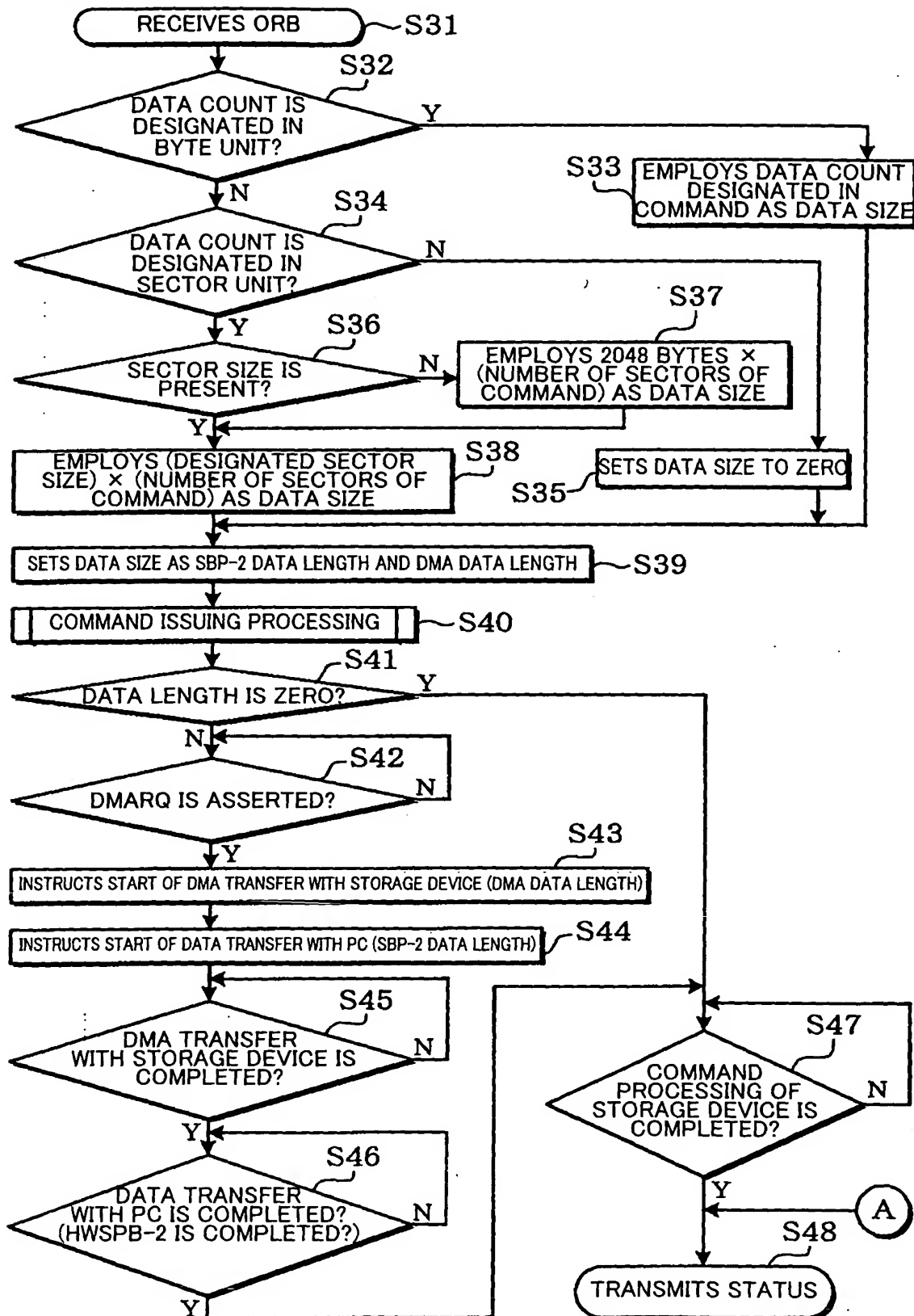
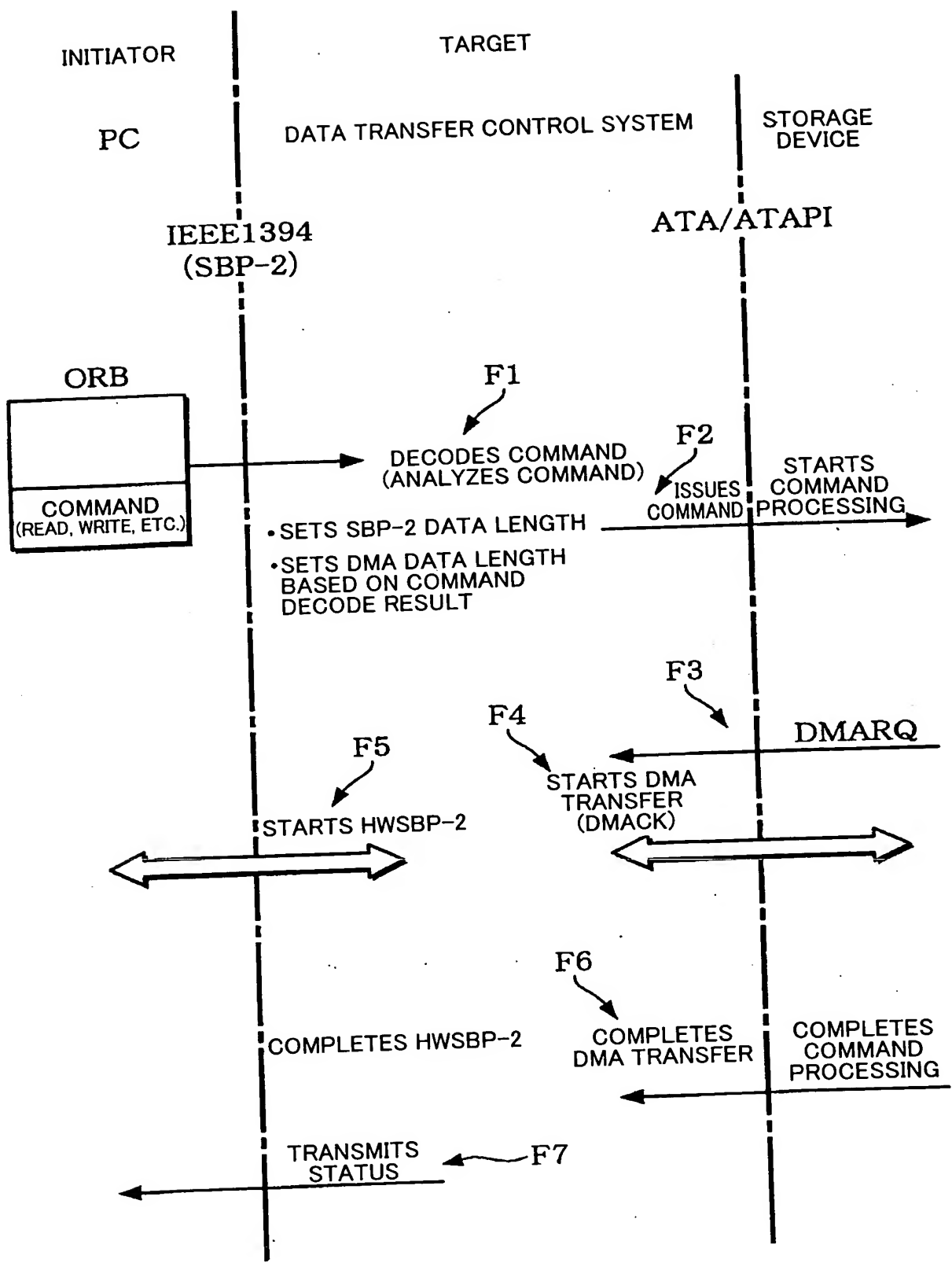


FIG. 13



```

graph TD
    S51([RECEIVES ORB]) --> S52{ORB DATA SIZE IS ZERO?}
    S52 -- Y --> S56[SETS DATA SIZE AT SBP-2 DATA LENGTH AND DMA DATA LENGTH]
    S52 -- N --> S53{PAGE TABLE IS PRESENT?}
    S53 -- Y --> S54[READS ALL OF PAGE TABLE AND CALCULATES DATA SIZE]
    S54 --> S56
    S53 -- N --> S56
    S56 --> S60[COMMAND ISSUING PROCESSING]
    S60 --> S61{DATA LENGTH IS ZERO?}
    S61 -- Y --> S67{COMMAND PROCESSING OF STORAGE DEVICE IS COMPLETED?}
    S61 -- N --> S62{DMARQ IS ASSERTED?}
    S62 -- N --> S67
    S62 -- Y --> S63[INSTRUCTS START OF DMA TRANSFER WITH STORAGE DEVICE (DMA DATA LENGTH)]
    S63 --> S64[INSTRUCTS START OF DATA TRANSFER WITH PC (SBP-2 DATA LENGTH)]
    S64 --> S65{DMA TRANSFER WITH STORAGE DEVICE IS COMPLETED?}
    S65 -- N --> S67
    S65 -- Y --> S66{DATA TRANSFER WITH PC IS COMPLETED? (HWSPB-2 IS COMPLETED?)}
    S66 -- N --> S67
    S66 -- Y --> S67
    S67 -- Y --> S68([A])
    S68 --> S69([TRANSMITS STATUS])
    S67 -- N --> S67

```

A

FIG. 15

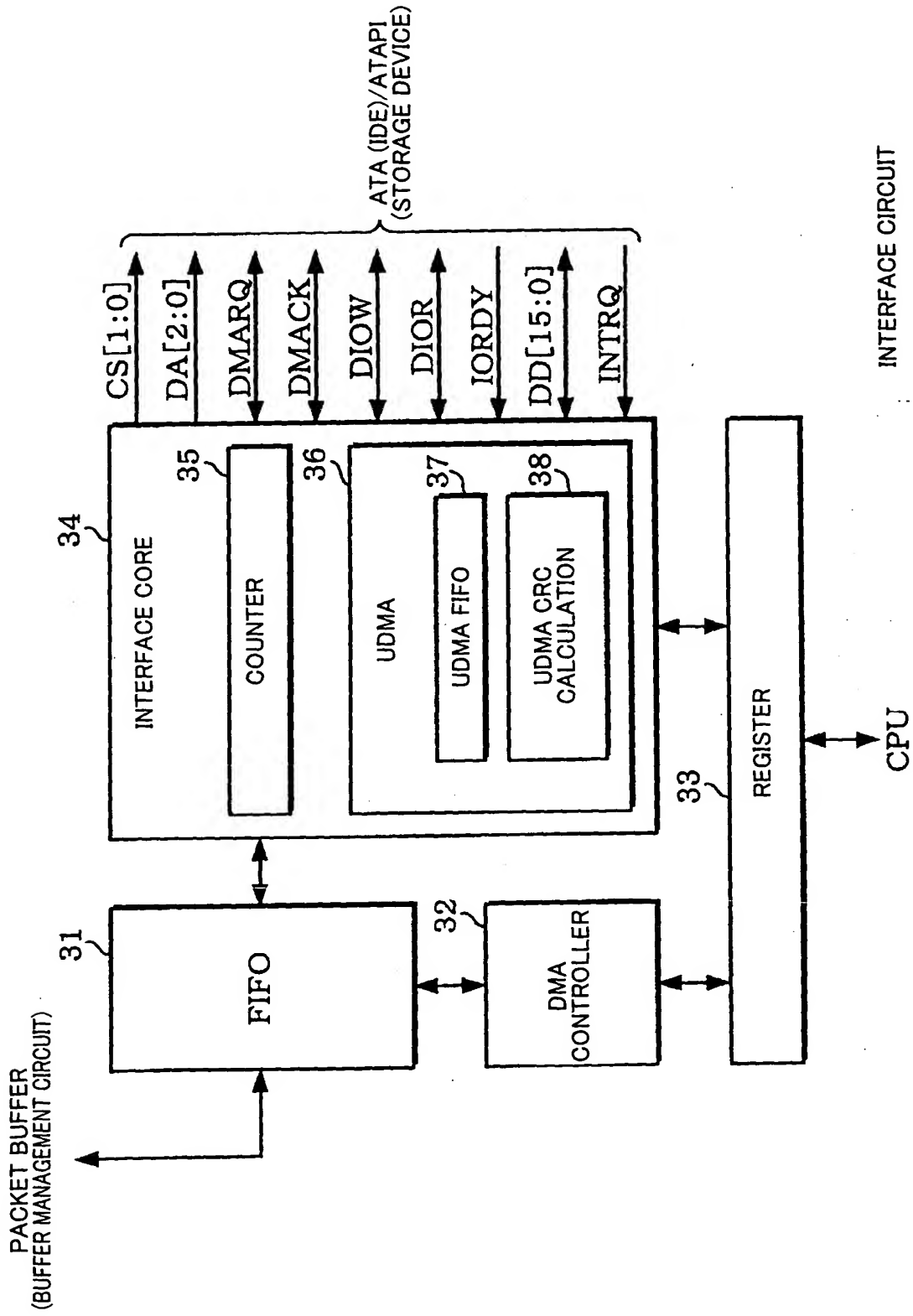


FIG. 16A

PIO READ (STORAGE DEVICE → DATA TRANSFER CONTROL SYSTEM → PC)

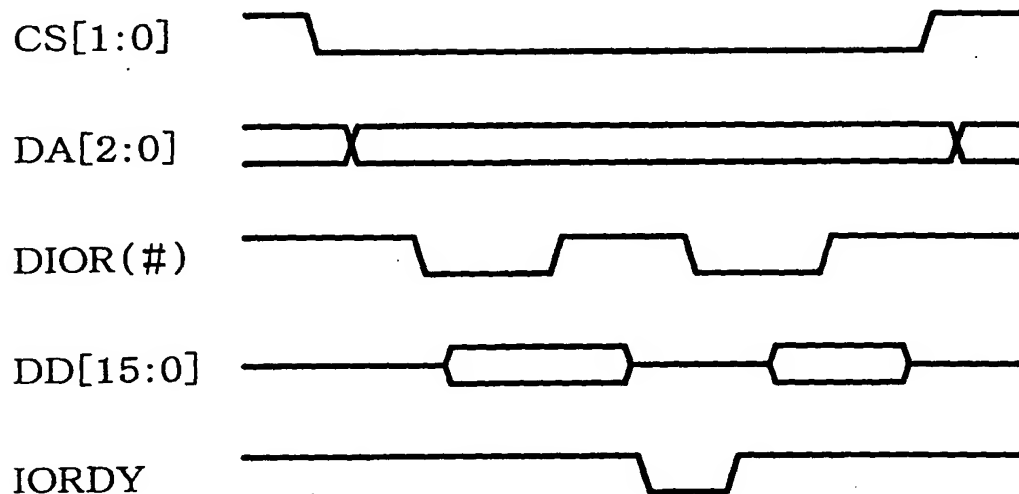


FIG. 16B

PIO WRITE (PC → DATA TRANSFER CONTROL SYSTEM → STORAGE DEVICE)

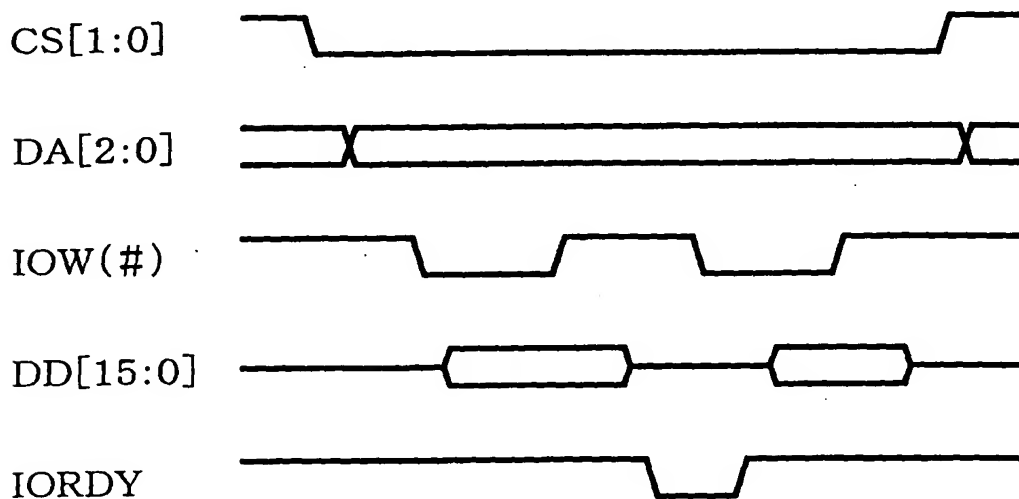


FIG. 17A

DMA READ (STORAGE DEVICE → DATA TRANSFER CONTROL SYSTEM → PC)

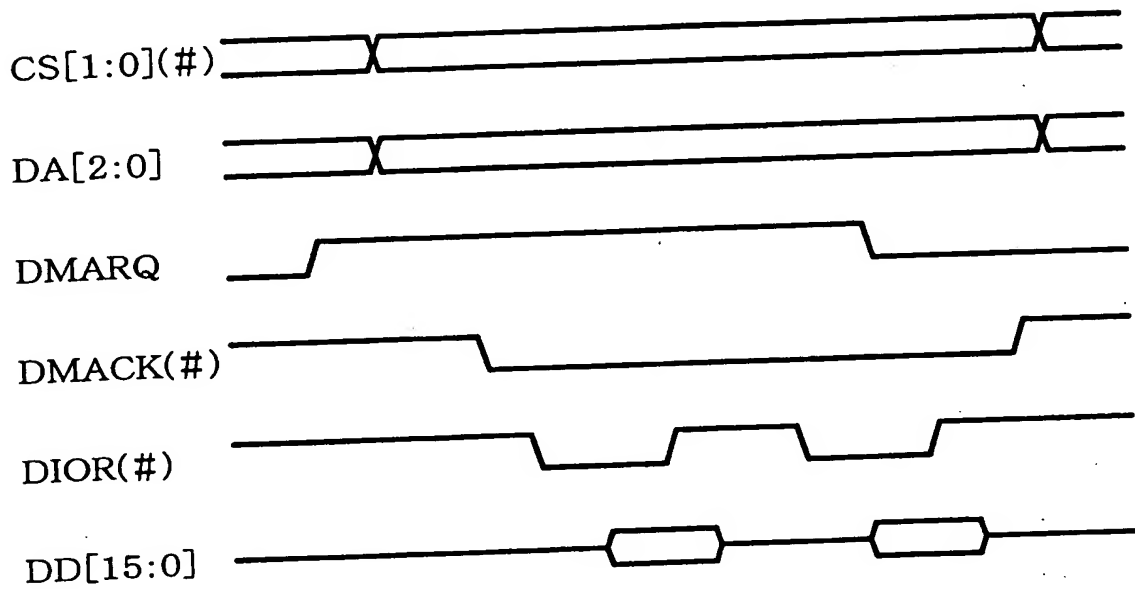


FIG. 17B

DMA WRITE (PC → DATA TRANSFER CONTROL SYSTEM → STORAGE DEVICE)

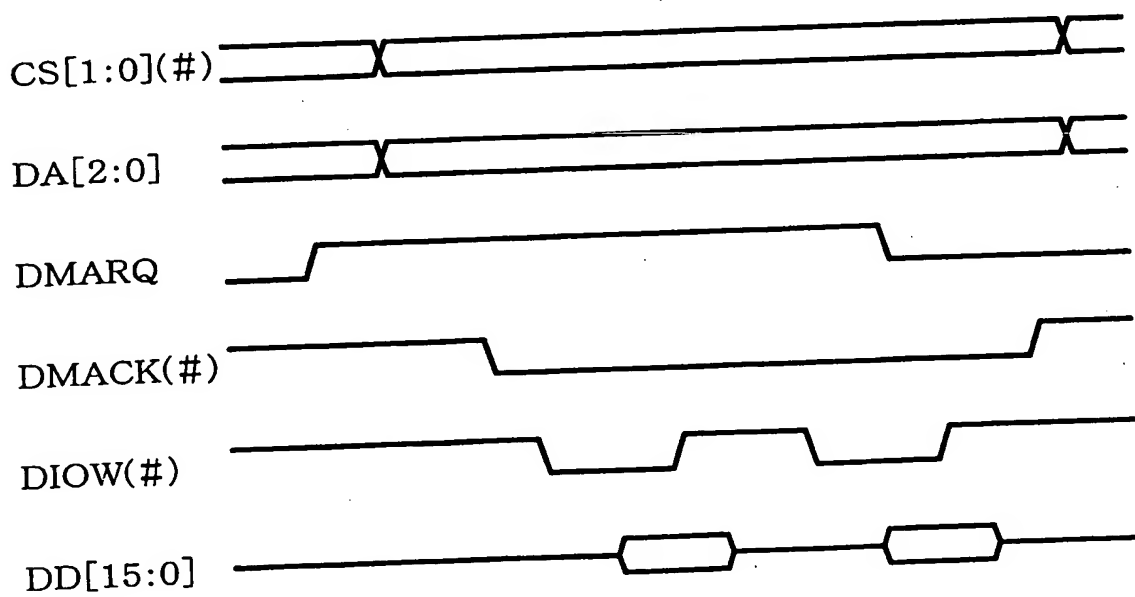


FIG. 18A

UltraDMA READ (STORAGE DEVICE → DATA TRANSFER CONTROL SYSTEM → PC)

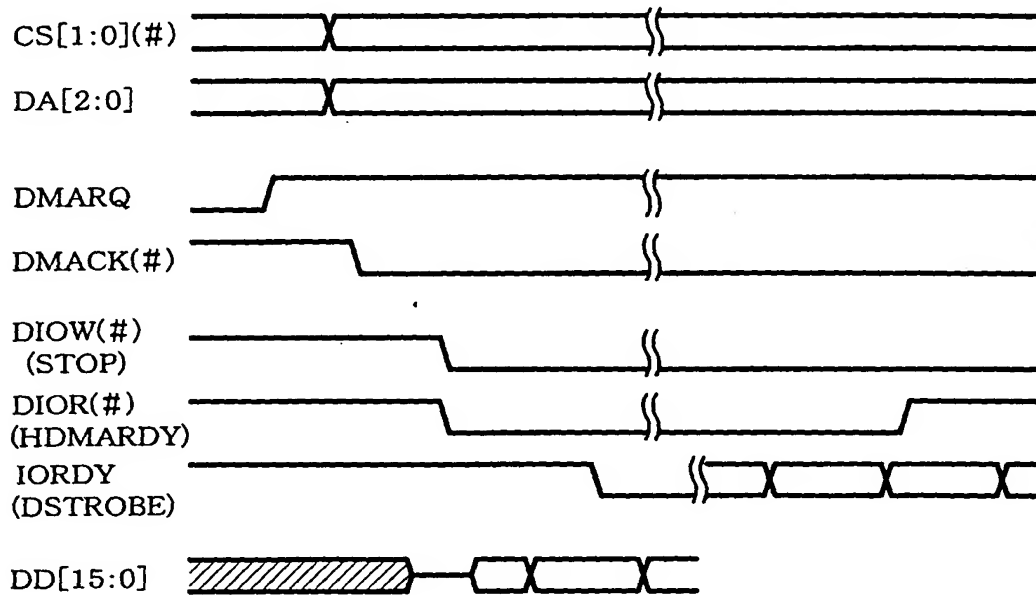


FIG. 18B

UltraDMA WRITE (PC → DATA TRANSFER CONTROL SYSTEM → STORAGE DEVICE)

